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Nota di contenuto	Chapter1: Phycoremediation of Nutrients and Valorisation of Microalgal Biomass: An Economic Perspective -- Chapter2: Astaxanthin production by microalgae Haematococcus pluvialis through wastewater treatment: waste to resource -- Chapter3: Potential of microalgae for integrated biomass production utilizing CO2 and food industry wastewater -- Chapter4: Microalgae: A biorefinary approach for the treatment of aquaculture wastewater -- Chapter5: Dual role of microalgae in wastewater treatment and biodiesel production -- Chapter6: A Biorefinery From Nannochloropsis spp. utilizing wastewater resources -- Chapter7: Cultivation of microalgae on anaerobically digested agro-industrial wastes and by-products -- Chapter8: Industrial wastewaters based microalgal biorefinery: A dual strategy to remediate waste and produce microalgal bioproducts -- Chapter9: Phyco-remediation of

dairy effluents and biomass valorisation: a sustainable approach -- Chapter10: Commercial potential of Phycoremediation of wastewater: A way forward -- Chapter11: Potential biotechnological applications of microalgae grown in wastewater: A holistic approach -- Chapter12: Microalgal biofuels production from industrial and municipal wastewaters -- Chapter13: Potential of microalgae for wastewater treatment and its valorization into added-value products -- Chapter14: Microbial carbon capture cell: Advanced bioelectrochemical system for wastewater treatment, electricity generation and algal biomass production -- Chapter15: Microalgal systems for integrated carbon sequestration from flue gas and wastewater treatment -- Chapter16: Industrial waste water based algal biorefineries: Application constraints and future prospects -- Chapter17: Volarization of nutrient rich urinal wastewater by microalgae for biofuel production -- Chapter18: Comprehensive overview of biomethane production potential of algal biomass cultivated in wastewater -- Chapter19: Role of Microalgal biotechnology in environmental sustainability -- Chapter20; An integrated approach of wastewater mitigation and biomass production for biodiesel using Scenedesmus sp. -- Chapter21: Microalgae and wastewaters: From ecotoxicological interactions to produce a carbohydrate-rich biomass towards biofuel application -- Chapter22: Comprehensive evaluation of High Rate Algal Ponds: wastewater treatment and biomass production.

Sommario/riassunto

This two-volume work presents comprehensive, accurate information on the present status and contemporary development in phycoremediation of various types of domestic and industrial wastewaters. The volume covers a mechanistic understanding of microalgae based treatment of wastewaters, including current challenges in the treatment of various organic and inorganic pollutants, and future opportunities of bioremediation of wastewater and industrial effluents on an algal platform. The editors compile the work of authors from around the globe, providing insight on key issues and state-of-the-art developments in algal bioremediation that is missing from the currently available body of literature. The volume hopes to serve as a much needed resource for professors, researchers and scientists interested in microalgae applications for wastewater treatment. Volume 2 addresses the various biorefinery aspects and applications of algal-based wastewater treatment in industrial and domestic contexts. The analyses are approached from multiple perspectives, including biotechnology, commercial, economic, and sustainability. The authors discuss the potential of microalgae for integrated biomass production utilizing various resources to treat wastewaters, and include evaluations of the economical and commercialization potential for such processes. .